

SAFETY DATA SHEET according to 2001/58/EC

22300, 22301 NOFOG

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Issued: 24.06.2005

Revision No: 1

Holmenkol Sport-Technologies GmbH & Co. KG

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY/UNDERTAKING**Product name:** 22300, 22301 NOFOG + clean**Use / description of product:** anti-fog coating**Company name:** HOLMENKOL Sport-Technologies GmbH & Co. KG

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2. COMPOSITION / INFORMATION ON INGREDIENTS**Hazardous ingredients:**

Ethanol CAS-N°: 64-17-5	EG-N°: 200-578-6	EG-Index-N°: 603-002-00-5	Content: <99,00 %
Hazard Symbols: F, Xi	R-Phrases: 11	S-Phrases: 7-16	
2-Propanol CAS-N°: 67-63-0	EG-N°: 200-661-7	EG-Index-N°: 603-117-00-0	Content: <20,00 %
Hazard Symbols: F, Xi	R-Phrases: 11-36-67	S-Phrases: 7-16-24/25-26	
2-Butanon CAS-N°: 78-93-3	EG-N°: 201-159-0	EG-Index-N°: 606-002-00-3	Content: <2,50 %
Hazard Symbols: F, Xi	R-Phrases: 11-36-66-67	S-Phrases: 9-16	

For the wording of the listed risk phrases refer to section 16.

3. HAZARDS IDENTIFICATION**Main hazards:** Highly flammable.**4. FIRST AID MEASURES****4.1 SYMPTOMS**

Skin contact:	There may be irritation and redness at the site of contact.
Eye contact:	There may be pain and redness. The eyes may water profusely. There may be severe pain. The vision may become blurred.
Ingestion:	There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur.
Inhalation:	There may be irritation of the throat with a feeling of tightness in the chest.

4.2 ACTION

Skin contact:	Remove all contaminated clothes and footwear immediately unless stuck to skin. Wash immediately with plenty of soap and water.
Eye contact:	Bathe the eye with running water for 15 minutes. Transfer to hospital for specialist examination.
Ingestion:	Wash out mouth with water. Do not induce vomiting. If conscious, give half a litre of water to drink immediately. Consult a doctor.
Inhalation:	Remove casualty from exposure ensuring one's own safety whilst doing so.

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5. FIRE-FIGHTING MEASURE

- Extinguishing media:** Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.
- Exposure hazards:** In case of fire, product may form: Organic crackproducts, nitrogen oxides and carbon oxides.
- Protection of fire-fighters:** Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions:** Mark out the contaminated area with signs and prevent access to unauthorised personnel. Do not attempt to take action without suitable protective clothing - see section 8 of SDS. Turn leaking containers leak-side up to prevent the escape of liquid.
- Environmental precautions:** Do not discharge into drains or rivers. Contain the spillage using bunding.
- Clean-up procedures:** Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

7. HANDLING AND STORAGE

- Handling requirements:** Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area. Avoid the formation or spread of mists in the air.
- Storage conditions:** Store in cool, well ventilated area. Keep container tightly closed.
- Suitable packaging:** Must only be kept in original packaging.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- Hazardous ingredients:** ETHANOL
TWA (8 hr exposure limit): 1000 ppm (OES)
PROPAN-2-OL
TWA (8 hr exposure limit): 200 ppm (OES) BAT: 50 mg/l
2-Butanone
TWA (8 hr exposure limit): 200 ppm (OES)
- Engineering measures:** Ensure there is sufficient ventilation of the area.
- Respiratory protection:** Self-contained breathing apparatus must be available in case of emergency
- Hand protection:** Butyl gloves. Breakthrough time of the glove material > 8 hours.
- Eye protection:** Safety goggles.
- Skin protection:** Solvent resistant protective clothing.

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9. PHYSICAL AND CHEMICAL PROPERTIES

State:	Liquid
Colour:	Colourless
Odour:	Alcoholic
Evaporation rate:	Moderate
Solubility in water:	Miscible
Viscosity value:	not available
Boiling point/range °C:	78
Melting point/range °C:	not available
Flammability limits %:	3,5
lower:	
upper:	15
Flash point °C:	12
Autoflammability °C:	363
Vapour pressure:	not available
Relative density:	0,79 g/ml
pH-value, undiluted ::	7,2

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Conditions to avoid:	Heat.
Materials to avoid:	Strong oxidising agents. Strong acids
Haz. decomp. products:	In case of fire, product may form: Organic crackproducts nitrogen oxides and carbon oxides.

11. TOXICOLOGICAL INFORMATION**Acute Health Effects :**

Inhalation, LC50 rat, (mg/l/4h) :	n.av.
Ingestion, LD50 rat, (mg/kg) :	n.av.
Skin - contact, LD50 rat, (mg/kg) :	n.av.
Irritation (to skin / eye) :	Irritating to eyes.
Sensitisation :	n.av.

Subacute / Chronic Toxicity :

Carcinogenicity :	n.av.
Mutagenicity :	n.av.
Teratogenicity :	n.av.
Narcotic Effects :	Inhalation of solvent-vapours in high concentration causes narcotic effects

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Practical Experience Observations relevant for classification : None.

Further Observations : None

General Remarks :

Classification of the preparation has been done by calculation in accordance with EEC directives.

12. ECOLOGICAL INFORMATION

Mobility: Volatile.

Persistence and degradability: Only slightly biodegradable.

Bioaccumulative potential: No data available.

Other adverse effects: No data available.

13. DISPOSAL CONSIDERATIONS

Disposal operations: D10 Incineration on land.
R1 Solvent reclamation/regeneration.

Waste code number: 070104, 150110

Disposal of packaging: Dispose of as normal industrial waste.

NB: The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

14. TRANSPORT INFORMATION**14.1 Land transport ADR/RID and GGVS/GGVE (cross-border/domestic):**

ADR/RID – Class: 3
 Packaging group: II
 UN – Number: 1993
 Kemler – Number: 33
 Label: 3
 Designation of goods: FLAMMABLE LIQUID, N.O.S. (Ethanol, Isopropanol)

**14.3 Maritime transport IMDG/GGVSea:**

IMDG/GGVSea –Class: 3
 UN – Nr. 1993
 EMS Number: F-E,S-E
 Marine pollutant: nmp
 GGVSee – Packaging group: II
 Label: 3
 Proper shipping name: FLAMMABLE LIQUID, N.O.S. (Ethanol, Isopropanol)

14.4 Air transport ICAO-TI and IATA-DGR:

ICAO/IATA – Class: 3
 UN/ID – Nr.: 1993
 Label: 3
 ICAO – Packaging group: II
 Proper shipping name: FLAMMABLE LIQUID, N.O.S. (Ethanol, Isopropanol)

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15. REGULATORY INFORMATION

Hazard symbols:



F highly flammable.

Risk phrases:

11

Highly flammable.

Safety phrases:

2

Keep out of reach of children.

16

Keep away from sources of ignition - No smoking.

23

Do not breathe vapour/spray.

29

Do not empty into drains.

51

Use only in well-ventilated areas.

Seveso II guideline:

Yes

Water hazard class:

1 Classification by VwVwS

Air emission directive:

Class: III Item no: 5.2.5 Amount m%: 88

Note:

The regulatory information given above only indicates the principal regulations specifically applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all

16. OTHER INFORMATION

applicable national, international and local regulations or provisions.

Other information:

storage class 3B AOX. no.

Risk phrases used in s.2:

R11: Highly flammable.

R36: Irritating to eyes.

R66: Repeated exposure may cause skin dryness or cracking.

R67: Vapours may cause drowsiness and dizziness.

Legal disclaimer:

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.